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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KANJI KIRIMOTO, TSUYOSHI SAKASHITA
and KAZUHISA YAMASHITA

Appeal 2009-002559
Application 10/826,173
to reissue Patent 6,557,671
Technology Center 3600

Decided: August 17, 2009

Before: ALLEN R. MacDONALD, Vice Chief Administrative Patent Judge,
FRED E. McKELVEY, Senior Administrative Patent Judge, and HOWARD
B. BLANKENSHIP, Administrative Patent Judge.

McKELVEY, Senior Administrative Patent Judge.

DECISION ON APPEAL

1 A. Statement of the case

2 The application on appeal was filed on 19 April 2004 to reissue

3 U.S. Patent 6,557,671 B1.

4 Shimano, Inc. ("Shimano"), the real party in interest, seeks review

5 under 35 U.S.C. § 134(a) of a final rejection (mailed 28 September 2007).

6 (1) Claims 37-43, 47-54 and 69-74 are rejected as being unpatentable

7 under 35 U.S.C. § 103 over:

8 (i) Carre, U.S. Patent 4,582,177,

- 1 (ii) Le Deit, U.S. Patent 5,697,475, and
2 (iii) Huang, U.S. Patent 6,148,964.

3 (2) Claims 55-59 are rejected as being unpatentable under 35 U.S.C.

4 § 103 over:

- 5 (i) Carre,
6 (ii) Le Deit,
7 (iii) Isai, U.S. Patent 5,960,914, and
8 (iv) Huang.

9 (3) Claim 60 is rejected as being unpatentable over:

- 10 (i) Carre,
11 (ii) Mott, U.S. Patent 5,201,402,
12 (iii) Le Diet,
13 (iv) Isai, and
14 (v) Huang.

15 Le Deit, Carre and Mott are prior art under 35 U.S.C. § 102(b).

16 Isai is prior art under 35 U.S.C. § 102(a).

17 Huang is prior art under 35 U.S.C. § 102(e).

18 Shimano does not attempt to antedate (37 C.F.R. § 1.131) Isai or

19 Huang.

20 We discuss the prior art rejections in Part C.

21 (4) Claims 37-60 and 69-74 are rejected as being unpatentable based
22 on the "recapture" rule.

23 We discuss the recapture rule rejection in Part D.

24 Claims 1-36, 61, 63-65 and 67-68 have been allowed.

See Appendix 1 at the end of this opinion for a visual summary of the rejected and allowed claims.

Claim 54

4 In the final rejection and the Examiner's Answer, claim 54 is not
5 included in the list of claims rejected over Le Deit, Carre and Huang.

6 Nevertheless, the Examiner discusses why claim 54 is not patentable
7 over the prior art.

⁸ In the Appeal Brief, Shimano treats claim 54 as rejected over Le Deit,
⁹ Carre and Huang, Appeal Brief, pages 7 and 13.

Upon a consideration of the record, as a whole, we find that

- (1) claim 54 was rejected over Le Deit, Carre and Huang and
(2) while Shimano does not single out claim 54 for separate consideration, Shimano nevertheless contests the rejection of claim 54—along with other claims—on appeal.

15 We have jurisdiction under 35 U.S.C. § 134(a).

16 B. Findings of fact

17 The following findings of fact are believed to be supported by a
18 preponderance of the evidence.

19 References to the specification are to U.S. Patent 6,557,671 B1.

20 To the extent that a finding of fact is a conclusion of law, it may be
21 treated as such. Additional findings as necessary may appear in the
22 Discussion portion of the opinion.

The invention

The invention of claim 37 can be understood by reference to (1) Figs. 1, 2, 4, 5, 6, 7 and 44, all reproduced below, and (2) associated parts of the specification.

5 Elements mentioned in claim 37 are also described after reproduction
6 of the drawing Figs.

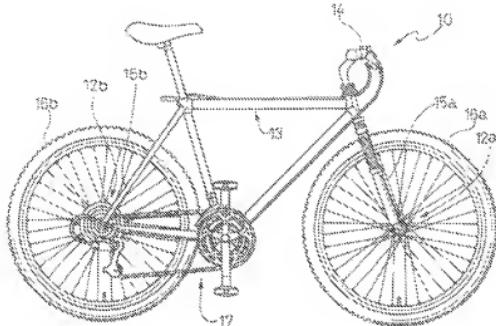


FIG. 1

Fig. 1 depicts a side elevation view of a bicycle with a pair disk brakes 12a and 12b

10 12a is a front wheel cable disc brake. 12b is the back wheel disc
11 brake.
12 16a is a front bicycle wheel.

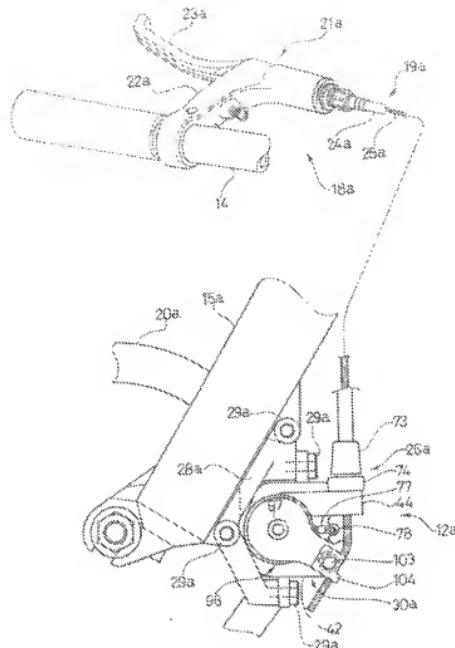


FIG. 2

1

2 Fig. 2 depicts a side elevational view of a front portion
3 of a bicycle with a front cable disc brake

4

5 12a is a front wheel disc brake.

6 20a is a disc brake rotor (see also the unnumbered curved element
7 right above "FIG. 2").

8 25a is a cable.

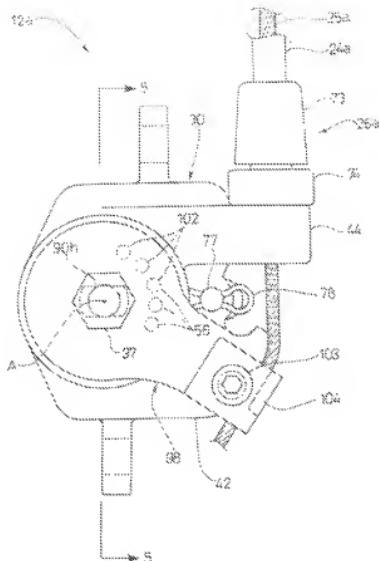


FIG. 4

1

2

3 Fig 4 depicts a partial side elevational view
4 of the front cable disc brake

5 12a is a disc brake.

6 25a is a cable.

7 44 is a cable support.

8 98 is an elongated actuating arm (see also Fig. 7).

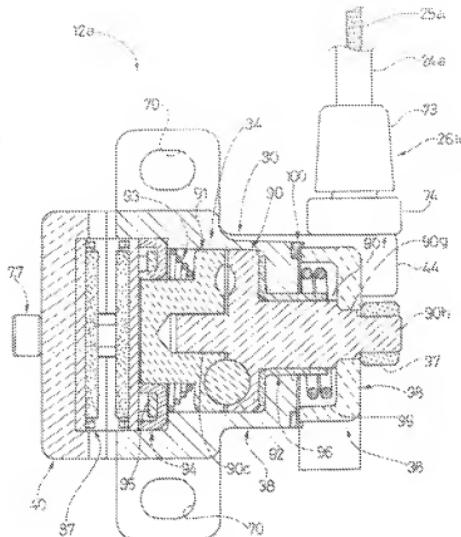


FIG. 5

1

2 Fig. 5 depicts a longitudinal cross-sectional view
3 of the front cable disc brake

4 12a is a disc brake.

5 30 is a caliper housing.

6 44 is a cable support.

7 98 is an elongated actuating arm (see also Fig. 7).

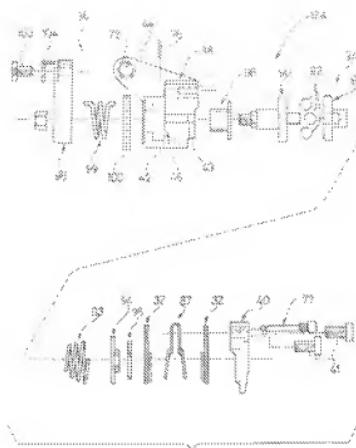


FIG. 6

- 1
2 Fig. 6 depicts an exploded elevational view
3 of a front cable disc brake
4 32 (left and right) are first and second friction members.
5 34 is a cam assembly.
6 36 is an actuating assembly (i.e., actuating mechanism).
7 The cam assembly and actuating assembly together form a cable
8 actuated mechanism that moves the brake pads between a release position
9 and braking position. Col. 6:16-19.
10 72 is an opening.
11 103 is a cable clamping bolt.
12 104 is a cable clamping plate.

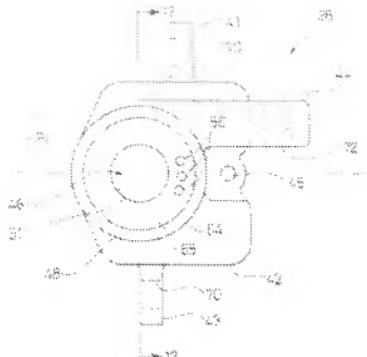


FIG. 7

1

Fig. 7 depicts a front elevational view of a left caliper portion of a front cable disc brake

4 42 is a body portion.

5 43 is a mounting bracket.

6 44 is a cable support.

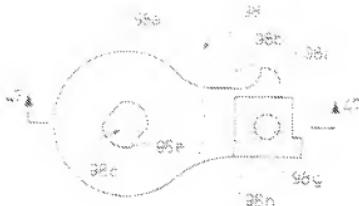


FIG. 44

Fig. 44 depicts an end elevational view of an actuating arm for a front cable disc brake.

98 is an actuating arm.

98i is a curved guide surface.

Rejected claim 37 reads as follows [bracketed material, drawing Figs. element numbers and references to specification added]:

9 A cable disc brake [Figs. 1 and 5, 12a; col. 6:13-16] for a
10 bicycle comprising:

[1] a caliper housing [Fig. 5, 30; col. 6:13-16] with a mounting

bracket [Fig. 7, 43; col. 6:41-43] structured and dimensioned to be attached to a bicycle [as shown in Fig. 2] and with a cable support [Figs. 5 and 7, 44; col. 6:41-43] having an opening (Fig. 7, 72; col. 7:37-39) for guiding a cable [Figs. 2 and 5, 25a; col. 5:55-62 and col. 10:34-37] therethrough;

[2] wherein the cable support 44 extends from a surface of the caliper housing 30 [at body portion 42 as shown in Fig. 7] and is not adjustable in any direction relative to the surface of the caliper

1 housing [because, for example, body portion 42 and cable support 44
2 are one piece as shown in Fig. 7 and described at col. 6:41-43];
3 [3] a first friction member [left side 32, Fig. 6; col. 6:13-16]
4 coupled to the caliper housing 30 for movement between a release
5 position and a braking position [col. 6:21-24];
6 [4] a second friction member [right side 32, Fig. 6; col. 6:13-
7 16] coupled to the caliper housing 30 and arranged substantially
8 parallel to the first friction member 32 to form a rotor receiving slot
9 therebetween [Fig. 5; col. 6:24-29]; and
10 [5] an actuated mechanism [34, 36, Fig. 5; col. 6:16-19]
11 movably coupled to the caliper housing 30 to move the first friction
12 member 32 in an axial direction from the release position towards the
13 second friction member 32 to the braking position (col. 6:16-19);
14 [6] wherein the actuated mechanism 34, 36 comprises an
15 elongated actuating arm [98, Figs. 5 and 44; col. 10:17-22] rotatably
16 coupled to the caliper housing 30 to cause the actuated mechanism 34,
17 36 to move the first friction member 32 from the release position
18 towards the braking position (col. 11:12-30);
19 [7] wherein the actuating arm 98 has a curved guide surface
20 [98i, Fig. 44] with a first portion coincident with a cable clamp [103
21 (clamping bolt), 104 (clamping plate), Fig. 4; col. 10:34-37] and a
22 second portion [curved tip, Fig. 4, unnumbered] that extends from the
23 first portion towards the cable support 44 so that the cable 25a, when
24 coupled to the cable clamp 103, 104, approaches the guide surface 98i
25 from the opening 72 in the cable support 44 essentially tangent to the

guide surface 98i and is supported by the guide surface 98i when the first friction member 32 is in the release position [shown in Figs. 2 and 4].

4 C. Prior art rejections

5 Claims 37-43, 47-60 and 69-74 stand rejected under 35 U.S.C. § 103
6 over the prior art.

To resolve the appeal, we focus solely on the arguments made by Shimano in the Appeal Brief and Reply Brief. All other arguments not made are waived.

Claim 37

11 Shimano has one argument with respect to the Examiner's § 103
12 rejection of claim 37.

13 Shimano calls our attention to the following limitation in claim 37
14 [comments in brackets, italics and drawing numerals added]:

wherein the cable support 44 extends from a surface of the caliper housing 30 [at body portion 42 shown in Fig. 7] and is *not adjustable* in any direction relative to the surface of the caliper housing [because, for example, body portion 42 and cable support 44 are one piece as shown in Fig. 7 and described at col. 6:41-43].

²¹ Appeal Brief, page 13; Response to Request for Additional Briefing, page 7.

According to Shimano, Le Deit does not describe the noted limitation and therefore the § 103 rejection of claim 37 over the prior art is erroneous.

The Examiner found that the position of cable support 44 of Le Diet,
as illustrated in Fig. 6 (characterized as alternative embodiments to those

- 1 shown in Figs. 1-5) is not adjustable, or adjustable in any direction.
2 Examiner's Answer, page 16.
3 The reader should know that, as a mere coincidence, both Shimano
4 and Le Deit label the cable support as 44.
5 The Examiner goes on to explain that index elements, or bump
6 formulations, 68' and 70', restrict the cable support 44 to a single position
7 with respect to caliper housing 46. The Examiner goes on to say that
8 therefore the cable support cannot be adjusted to any other position with
9 respect to the cable housing. Examiner's Answer, page 16.
- 10 In particular, the Examiner calls attention to Fig. 6 and col. 5:9-47.

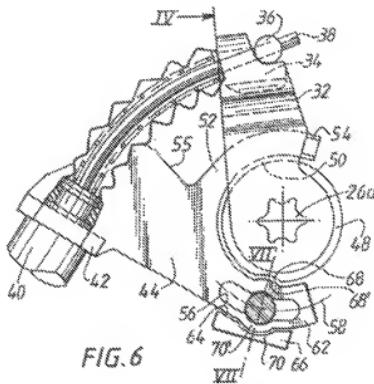


FIG. 6

- 11
12 Fig. 6 depicts a Le Deit alternative actuating device embodiment
13 Shimano refers to Le Deit Fig. 7, which is reproduced below.

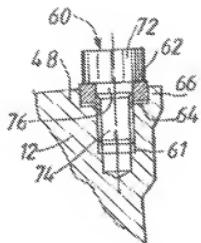


FIG. 7

1

2 Fig. 7 depicts a section on VII-VII of Fig. 6

3 The portion of Le Deit relied upon by the Examiner notes the
4 following [bracketed matter and italics added] (col. 5:9-52):

5 [A] concave radial depression 68 is formed in the wall of
6 the groove 64 formed by the cylindrical boss 48, the center of
7 this depression 68 being situated substantially on a radius
8 joining the axis X—X' to the axis of the tapped bore 61.

9 Likewise, a concave radial depression 70 is formed in the
10 wall of the groove 64 formed by the projecting part 66 of the
11 caliper 12, the center of this depression 70 being situated
12 substantially on a radius joining the axis X—X' to the axis of
13 the tapped bore 61, so that the two depressions 68 and 70 face
14 each other on each side of the axis of the tapped hole 61 [Fig.
15 7].

16 Finally, the screw 60 [Fig. 7] includes, between its
17 operating head 72 and its threaded shank 74, an intermediate
18 part 76 of axial length substantially equal to the thickness of the
19 bracing piece 44, and the cross-section of which adopts a cam

1 shape, the largest diameter of which is greater than the initial
2 width of the oblong slot 56.

3 When the brake is being set in the way which has already
4 been explained, once the tab 54 is bearing on the lever 32, the
5 initial effect of tightening the screw 60 in the bore 61 is to hold
6 it radially in the caliper 12 [Fig. 1—not reproduced].

7 Then, as the screw 60 is tightened further, the
8 intermediate part 76 is brought into the vicinity of the edge of
9 the oblong slot 56. The cam-shaped cross-section of the
10 intermediate part 76 then deforms the walls of the slot 56,
11 which deformation is passed on to the material of the arm 62,
12 the depress then expand into the depressions 68 and 70, therein
13 forming bumps 68' and 70' respectively. *The bracing piece 44*
14 *is thus in its optimum position as defined above.*

15 In contrast, *if the screw 60 is taken out following an*
16 *incorrect operation, the bracing piece 44 is no longer held and*
17 *can then escape.* It will then be very easy to put it back in
18 place, and what is more, to put it back in place in its initial and
19 optimum setting position. In fact, *it will have been understood*
20 *that the only possible angular position for the bracing piece 44*
21 *on the caliper 12 is the one in which the bumps 68' and 70' are*
22 *put back in place in the depressions 68 and 70.*

23 All that will then be required will be to put the bracing
24 piece 44 back into this position, then to retighten the screw 60,
25 or even some other screw which does not have the intermediate

1 cam-shaped part 76, in order to regain the disk brake with its
2 optimum initial setting.

3 Shimano urges that the Le Deit cable support is "adjustable" whereas
4 claim 37 requires that the cable support "is not adjustable." The Examiner
5 found otherwise. Shimano has not convinced us that the Le Deit cable
6 support is adjustable. In fact, based on Le Deit Fig. 6 and the accompanying
7 discussion, it would appear that the cable support, once in place, is intended
8 to remain in place. No further adjustment is needed or would be
9 contemplated.

10 Shimano cites and relies on *Dorel Juvenile Group, Inc. v. Graco*
11 *Children's Products, Inc.*, 429 F.3d 1043 (Fed. Cir. 2005) (two parts screwed
12 together are "removably attached" in the context of the invention involved).
13 The *Dorel* "-able" definition is said to have been adopted in an amendment
14 filed on 9 July 2007. Language in a claim undergoing examination is given
15 its broadest reasonable construction consistent with the specification. *In re*
16 *Prater*, 56 CCPA 1381, 1396, 415 F.2d 1393, 1404 (CCPA 1969). We fail
17 to see how the invention described in the patent involved in the *Dorel*
18 opinion has anything to do with Shimano's invention.

19 The word "adjustable" is not found in the specification of the Shimano
20 patent—or at least we could not find it. Because body portion 42 [Shimano
21 Fig. 7] and cable support 44 are characterized as being one piece, Shimano
22 reasons they are not adjustable one vis-à-vis the other. What is manifest is
23 that once put together, the Le Deit device is not adjustable within the
24 ordinary meaning of that term. The Fig. 7 Shimano device and the Fig. 6.
25 Le Deit device appear to be equally non-adjustable.

1 According to Shimano, the Le Deit configuration is adjustable. Why?
2 Because, Le Deit screw 60 could be loosened or removed, and then washers
3 or shims could be placed beneath cable support 44 thereby adjustment the
4 position of cable support 44 upwardly from the page. Appeal Brief, page 14.
5 As the Examiner notes, Shimano's possibility is mere speculation.
6 Examiner's Answer, page 16. "[N]one of what the applicant states [, i.e.,
7 speculates,] need occur [to construct and use the Le Deit device as described
8 by Le Deit]. *Id.*

9 The decision of the Examiner rejecting claim 37 under § 103 over the
10 prior art is *affirmed*.

11 Claim 38

12 Claim 38 reads (italics added):

13 A cable disc brake according to claim 37 [reproduced
14 earlier] wherein the second portion of the guide surface is
15 formed by a projection that forms a circumferentially *elongated*
16 *protuberance* that points in a rotational direction of the
17 actuating arm towards the cable support where the cable passes
18 through the cable support such that the cable is supported on
19 and by the protuberance.

20 According to Shimano, neither Le Deit nor Carre nor Huang describe
21 a projection that forms a circumferentially elongated protuberance. Appeal
22 Brief, page 14.

23 As in the case of the word "adjustable" in claim 37, the word
24 "protuberance" is not to be found in the Shimano specification. As best we

1 can tell, the word was added to claim 38 sometime after filing of the
2 application which matured into the Shimano patent.

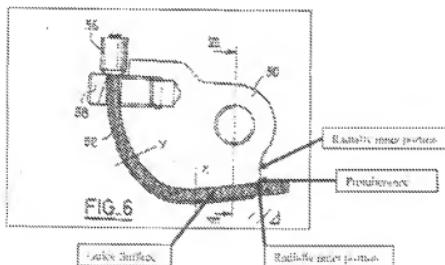
3 In an amendment filed 26 April 2007, Shimano states (page 19):

4 A protuberance is defined for the purpose of the claim as a
5 structure that bulges out beyond the surrounding surface.

6 While a patent applicant may act as its own lexicographer, the place to
7 do so is in the specification, as filed—not as an afterthought in an
8 amendment filed after the application is filed.

9 We would add that we do not believe the word "elongated" adds much
10 to "protuberance" given the Shimano "definition" of "protuberance." In
11 other words, on this record we would not be able to distinguish "elongated
12 protuberance" from "protuberance."

13 Taking Shimano at its word, and using its definition of "elongated
14 protuberance," the Examiner found that Fig. 6 of Carre describes the
15 required protuberance. Believing that a picture is worth a thousand words,
16 the Examiner provides the following annotated version of Carre Fig. 6:



17
18 Depicted is the Examiner's annotated version of Carre Fig. 6

1 As the Examiner's annotated version of Carre Fig. 6 reveals, Carre
2 describes the required protuberance.

3 According to Shimano, no protuberance is shown. Shimano goes on
4 to say:

5 At most, the draftsperson inadvertently drew an unevenly
6 thick line as he or she drew the cured portion of the member
7 (50). There is no basis to believe that a protuberance was
8 intended, and certain not an elongated protuberance as recited
9 in claim 38.

10 Appeal Brief, page 15.

11 There is no testimony from the "draftsperson." Hence, neither the
12 Examiner nor this panel can determine whether an "unevenly thick line" was
13 or was not inadvertent. Nor can the Examiner or the Board determine what
14 was "intended." Rather, the Examiner and the Board make findings based
15 on the evidence. The factual question here is: "What is described in Fig. 6
16 of Carre?" Whether inadvertent or not, or intended or not, the plain fact is
17 that Carre Fig. 6 describes a protuberance within the meaning of Shimano's
18 afterthought definition of "protuberance." We cannot say the described
19 protuberance is not elongated because Shimano failed in its specification to
20 define the meaning of elongated. Accordingly, anything that "sticks" out
21 can be fairly said to be a "protuberance" or an "elongated protuberance."

22 The decision of the Examiner rejecting claim 38 under § 103 is
23 *affirmed*.

Claims 39 and 40

Claim 39 reads:

A cable disc brake according to claim 38 [reproduced earlier] wherein the projection has a radially outer portion that extends towards the cable support and a radially inner portion that extends away from the cable support back towards a side surface of the actuating arm.

Claim 40 reads:

A cable disc brake according to claim 39 wherein the projection is disposed in close proximity to a radially outermost portion of the actuating arm.

According to Shimano, the combination of Le Deit, Carre and Huang do not disclose or provide "a motivation" to form the required outer and inner portions of claim 39 or the projection of claim 40. Appeal Brief, page 15. Shimano adds nothing to the "argument" in its Reply Brief. Reply Brief, page 3.

In the Final Rejection (mailed 28 September 2007), the Examiner made the following findings (page 5):

Carre ... teach[es] a cable disc actuating system comprising an actuating arm 50 provided with a curved guide surface with a first portion coincident with a cable clamp 58 and a second portion extending from the first portion, wherein the second portion is a projection defined by a protuberance (see figure 6, note the slight protuberance at the cable exit portion of the arm) that supports the cable (*claim 38*); the projection has a radially

1 outer portion (*claim 39*); the projection is disposed at the
2 radially outermost portion of the actuating arm (*claim 40*); the
3 cable, once coupled to the cable clamp, approaches the guide
4 surface from the opening in the cable support in substantially a
5 straight line (*claim 54*, due to the curved guide surface the cable
6 extending from the cable support will extend in a straight line
7 as shown by Carre ...). Furthermore, Carre ... teach[es] that
8 the curved guide surface structure of the actuation arm provides
9 for an increase in torque exerted during rotation, see column 4,
10 lines 61-64, thereby improving braking response.

11 The Examiner goes on to explain why it would have been obvious to
12 replace the actuating arm of Le Deit with the actuating arm taught by Carre,
13 "thereby improving the overall brake performance and response of the cable
14 actuated brake mechanism." Final Rejection, page 5.

15 An appeal brief is supposed to contain the "contentions of appellant
16 with respect to each ground of rejection ... and the basis therefore, with
17 citations of the ... parts of the record relied on." 37 C.F.R.
18 § 41.37(c)(1)(vii).

19 What Shimano's Appeal Brief amounts to is an assertion that the
20 Examiner is wrong. Missing from the brief is the "why?" *Compare*
21 *Ex parte Belinne*, Appeal 2009-004693, slip op. at 6-7 (BPAI Aug. 10, 2009
22 (informative opinion), available at:

23 <http://www.uspto.gov/web/offices/dcom/bpai/its/fd09004693.pdf>
24 Shimano did not undertake a discussion pointing out why the
25 Examiner's findings are wrong. A skeletal argument, really nothing more

1 than an assertion, does not preserve a claim for argument on appeal.
2 *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1250 n.2 (Fed.
3 Cir. 2008) ("Judges are not like pigs, hunting for truffles buried in briefs."
4 (quoting *United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991))). A
5 brief must present all arguments and cannot ask judges to play archaeologist
6 with a record. *DeSilva v. DiLeonardi*, 181 F.3d 865, 867 (7th Cir. 1999).
7 Shimano, in effect, invites us to "dig" through the record to see if we can
8 find evidence to make out Shimano's case on appeal. We decline the
9 invitation because it is not our role to act as advocate for an appellant. *Ernst*
10 *Haas Studio, Inc. v. Palm Press, Inc.*, 164 F.3d 110, 112 (2d Cir. 1999).

11 Since Shimano has not addressed the Examiner's findings and has
12 merely asserted that the Examiner has erred, the decision of the Examiner
13 rejecting claims 39 and 40 under § 103 is *affirmed*.

14 Claim 43

15 Claim 43 reads (italics added):

16 A cable disc brake according to claim 41 [not reproduced]
17 further comprising an *adjusting mechanism* that adjusts the
18 biasing force applied between the caliper housing and the
19 actuating arm in addition to changes of biasing force caused by
20 rotation of the actuating arm relative to the caliper housing.

21 Claim 43 was finally rejected under § 103 over the combination of
22 Le Deit, Carre and Huang. Final Rejection, page 4.

23 However, we have been unable to find any discussion in the Final
24 Rejection addressing claim 43 in particular. Shimano seems to agree and

1 goes so far as to suggest that claim 43 was not rejected. Appeal Brief,
2 page 15.

3 Nevertheless, Shimano makes a preemptive strike against any
4 rejection which might be made in the Examiner's Answer. According to
5 Shimano:

6 [N]either Le Deit . . . , Carre . . . nor Huang provide a
7 motivation to provide an adjusting mechanism that adjusts the
8 biasing force applied between the caliper housing and the
9 actuating arm in addition to changes of biasing force caused by
10 rotation of the actuating arm relative to the caliper housing.

11 Appeal Brief, page 15.

12 In the Examiner's Answer, the Examiner confirms that claim 43 was
13 rejected. Examiner's Answer, page 18.

14 Responding to Shimano's preemptive strike, the Examiner states:

15 With regards to claim 43, turning to figure 6 in Le Deit
16 . . . attention is drawn to a bushing element positioned between
17 a spring end and limit stop 42. The length of this element will
18 determine in part the biasing force applied between the caliper
19 housing and the actuating arm, by either contracting or
20 expanding the rest length of the spring.

21 *Id.* Le Deit Fig. 6 is reproduced earlier in this opinion.

22 In its Reply Brief, Shimano states:

23 With regards to claim 43, there is no teaching or reason to
24 modify the length of any bushing in Le Diet . . . to adjust a
25 biasing force of the spring surrounding cable 38.

1 Reply Brief, page 3.

2 The argument in the Reply Brief is a new argument. Ordinarily a new
3 argument in a Reply Brief is not considered. However, in this case the
4 Examiner's first exposition of why claim 43 is unpatentable took place in the
5 Examiner's Answer. Under the circumstances, we believe the argument in
6 the Reply Brief should be considered—otherwise Shimano has no
7 opportunity to address the § 103 rejection of claim 43 on the merits.

8 We understand what the Examiner is saying, but we agree with
9 Shimano that there is no teaching or reason to modify the length of any
10 bushing. To be sure, as the Examiner notes, different size bushings might be
11 used. However, unexplained is why use of different size bushings is "an
12 adjusting mechanism" within the meaning of claim 43.

13 The decision of the Examiner rejecting claims 43 under § 103 is
14 *reversed*.

15 Claim 47

16 Claim 47 reads:

17 A cable disc brake according to claim 37 [reproduced earlier]
18 further comprising a cable adjusting bolt fitted within the
19 opening in the cable support through which the cable passes.

20 In the Final Rejection, the Examiner observed [referring to what we
21 believe is Fig. 2 of Le Deit]:

22 Re-claim 47, the opening in the cable support 44 is provided
23 with cable adjusting bolts or elements.

24 Final Rejection, page 6.

1 Fig. 2 of Le Deit is reproduced below.

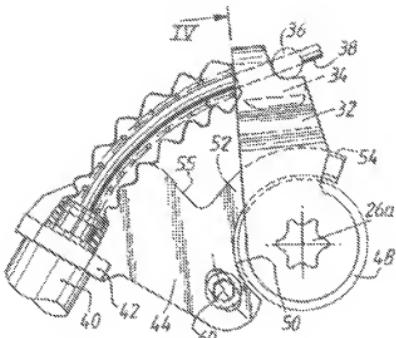


FIG. 2

Depicted is mechanical actuating device according to the Le Deit invention

According to Shimano, the prior art does not disclose or provide a motivation to include a cable adjusting bolt fitted within the opening in the cable support through which the cable passes. Appeal Brief, page 15.

8 In the Examiner's Answer, the Examiner appears to shift the basis for
9 the rejection stating:

With regards to claim 47, Carre . . . clearly teaches a adjusting bolt 46, which is clearly capable of being porated into the assembly of Le Deit . . . , as this is a non means by which to provide the user a method by n to adjust the cable tension.

15 Examiner's Answer, page 18.

Carre Fig. 3 is reproduced below.

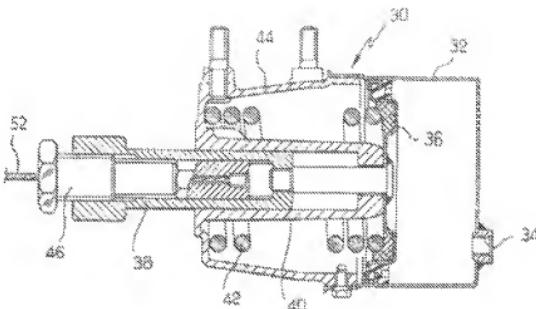


FIG.3

1

2 Depicted is a control jack with a modified output member
3 Shimano's reply to the Examiner's shift in emphasis is:

4 With regards to claim 47, Carre . . . neither discloses nor
5 provides a motivation to include a cable adjusting bolt fitted
6 within any opening in any cable support associated with
7 "actuating arm (50)."

8 Reply Brief, page 3.

9 Carre describes a cable adjusting bolt 46 fitted within output member
10 38. Claim 47 requires no more. The Examiner found that the means
11 described by Carre "is a common means by which to provide the user a
12 method by which to adjust the cable tension." Examiner's Answer, page 18.
13 Shimano has not taken issue with the Examiner's finding. Accordingly, we
14 accept the Examiner's finding. *In re Eskild*, 55 CCPA 807, 810, 387 F.2d
15 987, 988-89 (CCPA 1968) (Examiner's statement relating to common
16 practices in the art was accepted as factual in view of appellant's failure to

1 challenge the statement). Shimano has failed to establish that the Examiner
2 erred in rejecting claim 47.

3 The decision of the Examiner rejecting claim 47 under § 103 is
4 *affirmed*.

5 Claim 69

6 Claim 69 reads [italics and bracketed matter added]:

7 A cable disk [sic—disc] according to claim 37
8 [reproduced earlier] wherein the cable support [44] is *one piece*
9 with the surface of the caliper housing [30] from which it
10 extends.

11 In the Final Rejection, the Examiner observed:

12 Re-claim 69, the cable support 44 is immobilized (see [Le Deit]
13 column 3 lines 39-43) with respect to the caliper housing 12
14 and as such is broadly interpreted as being one with the caliper
15 housing.

16 Final Rejection, page 6.

17 Le Deit states (col. 3:39-43):

18 The oblong slot 56 serves to immobilize the bracing piece 44 on
19 the caliper 12, for example by means of a screw 60 passing
20 through this opening and screwed into a tapped bore made in
21 the rear part 46 of the caliper 12.

22 Shimano "submit[s] that one piece means one piece. One piece does
23 not mean two pieces bolted together, nor is such an interpretation
24 reasonable." Appeal Brief, page 16.

1 Responding, the Examiner found that once the cable support is
2 assembled and attached to the caliper housing that the two elements are
3 interpreted as one, or one piece.

4 On the "one piece" issue we find ourselves between a rock and hard
5 place. Shimano's claim uses the phrase "one piece" but the phrase is not
6 defined in the specification. For example, the specification does not say that
7 "one piece" means "one *integral* piece."

8 Shimano Figs. 4-5 and 7 show what appears to be a "one piece" (i.e.,
9 an one integral piece) element made up of elements 30 and 44. The
10 specification says the following (col. 6:41-49) (italics added):

11 As seen in FIGS. 7-12, the left caliper portion 38 basically has a
12 body portion 42 a pair of mounting flanges 43 and a *cable*
13 *support flange* 44. The body portion 42 has a pad support
14 bore 45 extending in a longitudinal direction and an axially
15 extending internal bore 46 that extends longitudinally between
16 a first open end 48 and a second open end 50 of the left caliper
17 portion 38. The pad support bore 45 is utilized to support the
18 brake pads 32 on the caliper housing 30 as discussed below.

19 The specification also says (col. 7:33-37) (italics added):

20 As seen in FIGS. 2, 4, 7 and 8, the *cable support member or*
21 *flange 44 extends outwardly from the body portion 42* in a
22 direction that is substantially tangent to an imaginary circle
23 with its center located at the center axis of the internal bore 46.

24 On the other hand, as noted by the Examiner, when two pieces are
25 connected so as to be immobilized one with respect to the other, we cannot

1 say that the two pieces—now immobilized—do not function as one piece,
2 particularly when in combination they seem to function in the same manner
3 as a "one integral piece" would function.

4 At the end of the day, since the only "one piece" element described in
5 the specification is an integral element, we agree with Shimano that the Le
6 Deit device does not describe a "one piece" element.

7 The decision of the Examiner rejecting claim 69 under § 103 is
8 *reversed*.

9 Claim 72-73

10 The arguments with respect to claims 72-73 appear to be the same as
11 the argument with respect to claim 37. Appeal Brief, pages 16-17.

12 The decision of the Examiner rejecting claims 72-73 under § 103 is
13 *affirmed*.

14 Claim 74

15 Claim 74, like claim 69, recites a "one piece" element. *See* Appeal
16 Brief, page 18. Were it not for the "one piece" element limitation, we would
17 affirm. However, based solely on the "one piece" element difference, the
18 decision of the Examiner rejecting claim 74 under § 103 is *reversed*.

1 Summary of disposition of prior art rejections

2 Apart from the claims addressed above, Shimano has not singled out
3 any other claim for separate consideration.

4 The decision of the Examiner rejecting claims 37-42, 47-60 and 72-73
5 over the prior art is *affirmed*.

6 The decision of the Examiner rejecting claims 43, 69 and 74 and
7 claims dependent therefrom (claims 70-71) over the prior art is *reversed*.

8 D. The "recapture" rule rejections

9 Claims to be considered

10 With respect to the recapture rule appeal, Shimano, in its Appeal Brief
11 and Reply Brief, presents specific arguments directed only to claims 37 and
12 72-74. Other dependent claims are not separately argued. Hence, ordinarily
13 we would consider *only* claims 37 and 72-74. Notwithstanding Shimano
14 presented no separate argument with respect to claim 69, but because of our
15 resolution of the § 103 issue of claim 69, we will consider claim 69 apart
16 from claim 37 (from which it depends).

17 In effect, claim 69 stands or falls with claim 74 because both contain a
18 "one piece" limitation. Compare the discussion of claims 44-46 *infra*, where
19 there was no occasion to consider prior art vis-à-vis claims 44-46.

20 Original claim 1

21 Original application 09/531,570 (now U.S. Patent 6,557,671 B1), as
22 filed, contained claims 1-13.

23 Original claim 1 read [drawing numbers and bracketed matter added]:

24 A cable disc brake comprising:

25 [1] a caliper housing 30 [col. 6:13-16];

- [2] a first friction member 32 [Fig. 6, left side] movably coupled to said caliper housing between a release position and a braking position [col. 6:24-29];
- [3] a second friction member 32 [Fig. 6, right side] coupled to said caliper housing 30 and arranged substantially parallel to said first friction member 32 [Fig. 6, left side] to form a rotor receiving slot therebetween [col. 7:62-65]; and
- [4] an actuated mechanism 34, 36 [Fig. 6; col. 6:16-19] movably coupled to said caliper housing 30 to move said first friction member 32 [Fig. 6, left side] from said release position towards said second friction member 32 [Fig. 6, right side] to said braking position [col. 6:16-19], said actuated mechanism 34, 36 having first 90 and second 91 cam members [Fig. 5, col. 8:49-52] movably arranged between an axially retracted position and an axially extended position [col. 8:53-61] with a guide member 90c [Fig. 5; col. 8:62-65] interconnecting said first 90 and second 91 cam members during movement between said axially retracted position and said axially extended position [col. 9:39-45].

First rejection

All the original claims in the original application, including original

claim 1 were rejected under 35 U.S.C. § 102(b) as anticipated by

Toyomasu, U.S. Patent 3,765,511, Office Action mailed 23 May 2001

(Paper 6)

First amendment

In an amendment received at the USPTO on 09 August 2001 (Paper 7,

³ Amendment A), claim 1 was amended to read [bracketed matter added;

4 limitations added shown in underlining]:

Claim 1 (amended). A cable disc brake comprising:

[1] a caliper housing;

[2] a first friction member movably coupled to said caliper housing between a release position and a braking position;

[3] a second friction member coupled to said caliper housing

and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

[4] an actuated mechanism movably coupled to said caliper

housing to move said first friction member in an axial direction from said release position towards said second friction member to said

braking position without rotating said first friction member [output

cam 91, which moves first friction member 32 (Fig. 6, left side), is nonrotatably mounted to rotation stopper 94 (col. 9:49-53)], said

actuated mechanism having first and second cam members movable

arranged between an axially retracted position and an axially extended position with a guide member interconnecting said first and second

cam members during movement between said axially retracted

position and said axially extended position,
one 90 of said first 90 and second 91 cam members being
rotatably mounted within said caliper housing 30, and the other 91 of

1 said first 90 and second 91 cam members being movably mounted in
2 said axial direction [col. 9:32-37].

3 In remarks, Shimano said inter alia the following:

4 In response, Applicant has amended independent claim 1
5 to clearly define the present invention over the prior art of
6 record. Amendment, pages 4-5.

7 In particular, independent claim 1 has been amended to
8 recite a cable disc brake having first and second cam members
9 with one of the first and second cam members being rotatably
10 mounted within the caliper housing, and the other of the first
11 and second cam members being movably mounted in the axial
12 direction. Moreover, independent claim 1 has been amended to
13 recite that the first friction members moves in an axial direction
14 without rotating. Clearly, this structure is *not* disclosed or
15 suggested by Toyomasu or any other prior art of record. More
16 specifically, the Office Action relies on the embodiment shown
17 in Figure 33 of Toyomasu to reject claims 1-13. However, the
18 first and second camming [sic—cam ?] members 16 and 43 of
19 Toyomasu do not operate in the same manner as set forth in
20 independent claim 1, as now amended. More specifically, the
21 *camming* [sic—cam ?] member 16 of Toyomasu is designed to
22 rotate and move axially while the *camming* [sic—cam member
23 ?] 43 of Toyomasu is designed to be a *stationary member*.
24 Accordingly, neither the camming member 16 of Toyomasu nor
25 the camming member 43 of Toyomasu rotates but does not move

1 axially, or moves axially but does not rotate as now set forth in
2 amended claim 1. Moreover, claim 1 now recites that the *first friction*
3 *members moves in an axial direction but does not rotate.* In the
4 cable brake device of Toyomasu, the friction member 6 is both *rotated*
5 and *moved axially.* Amendment A (Paper 7), page 5.

6 Second rejection

7 After a notice of allowance, withdrawal from issue and a filing of an
8 RCE [request for continued examination], there came a time when a second
9 rejection was entered by the Examiner. Office Action mailed 11 July 2002
10 (Paper 14).

11 At this point, the original application contained claims 1-20.

12 Claims 1-20 were rejected under 35 U.S.C. § 102(b) as anticipated by
13 Kawaguchi [U.S. Patent 3,789,959].

14 Second amendment

15 A response to the second rejection was received by the USPTO on 08
16 November 2002. Paper 16 (Amendment B).

17 In response to the second rejection, claim 1 was again amended [some
18 bracketed matter added, limitations added by the first amendment shown in
19 bold; limitations deleted shown in strikethrough and limitations added
20 shown in underlining]:

1 Claim 1 (twice amended). A cable disc brake comprising:

2 [1] a caliper housing;

3 [2] a first friction member movably coupled to said caliper
4 housing between a release position and a braking position;

5 [3] a second friction member coupled to said caliper housing
6 and arranged substantially parallel to said first friction member to
7 form a rotor receiving slot therebetween; and

8 [4] an actuated mechanism movably coupled to said caliper
9 housing to move said first friction member in an axial direction from
10 said release position towards said second friction member to said
11 braking position ~~without rotating said first friction member~~, said
12 actuated mechanism ~~having first and second cam members movably~~
13 ~~arranged between an axially retracted position and an axially extended~~
14 ~~position with a guide member interconnecting said first and second~~
15 ~~cam members during movement between said axially retracted~~
16 ~~position and said axially extended position,~~

17 ~~one of said first and second cam members being rotatably~~
18 ~~mounted within said caliper housing, and the other of said first~~
19 ~~and second cam members being movably mounted in said axial~~
20 ~~direction including~~

21 an input cam 90 [Fig. 5, col. 8:49-52] movably mounted within
22 said caliper housing 30 to move in a rotational direction about a
23 longitudinal axis [col. 8:56-61], but not in an axial direction [input
24 cam 90 is one-piece and is axially immovably fastened to caliper
25 housing 30 via nut 97 as shown in Fig. 5], said input cam having a

1 first camming surface 90d [Fig. 31, col. 8:65-67] with an axially
2 extending guide member 90c [Fig. 5; col. 8:62-65] non-movably fixed
3 thereto at said longitudinal axis [input cam 90, including guide
4 member 90c, is one-piece as shown in Fig. 5], and
5 an output cam 91 [Fig. 5; col. 8:49-52] movably mounted
6 within said caliper housing 30 to move in the axial direction in
7 response to rotation of said input cam 90 [col. 9:33-38], but not in the
8 rotational direction [col. 9:45-49], said output cam having a second
9 camming surface 91c [Fig. 35; col. 9:31-33] with an axially extending
10 bore 91e [Fig. 34; col. 9:39-42], said guide member being at least
11 partially disposed within said bore 91e to ensure smooth relative
12 movement between said input and output cams 90, 91 [col. 9:24-27].

13 In remarks, Shimano said *inter alia* the following:

14 Specifically, Applicants have amended independent
15 claim 1 to clarify that the actuated mechanism includes an input
16 cam movably mounted within said caliper housing to move in a
17 rotational direction about a longitudinal axis, but not in an axial
18 direction, said input cam having a first camming surface with
19 an axially extending guide member non-movably fixed thereto
20 at said longitudinal axis, and an output cam movably mounted
21 within said caliper housing to move in the axial direction in
22 response to rotation of said input cam, but not in the rotational
23 direction, said output cam having a second camming surface
24 with an axially extending bore, said guide member being at

least partially disposed within said bore to ensure smooth relative movement between said input and output cams.

* * *

Applicants do not believe the unique arrangements of independent claim[] 1 . . . [is] disclosed or suggested in the Kawaguchi patent.

Specifically, the Kawaguchi patent basically discloses a disc brake which includes an operation lever 14 loosely mounted to the threaded tube 12 behind a plate 13. The plate 13 is a pressure receiving plate while the operation lever 14 acts to actuate the pressure receiving plate 13. Balls 16 are disposed between the plates 13 and 14. When the operation lever 14 is turned, the pressure receiving plate 13 will cause, through the action of balls 16, axial movement of threaded tube 12 and the adjusting screw 11 mounted therein, thereby urging pad 8 against the disc 2. Thus, at best, the Kawaguchi patent discloses a guide member that is axially movable with the axially movable plate 13. In other words, the Kawaguchi patent fails to disclose or suggest the axially extending guide member non-movably fixed to the input cam at the longitudinal axis, where the input cam is rotatably but not axially movable, as required by independent claim 1, as now amended.

Amendment B (Paper 16), pages 7-8.

1 Claim 37 on appeal

2 Claim 37 on appeal deletes some limitations from claim 1 (twice
3 amended—which claim 1 of the patent), but adds other limitations.

4 Claim 37 reads [bracketed matter added, limitations deleted shown in
5 strikethrough and limitations added shown in bold].

6 Claim 37. A cable disc brake for a bicycle comprising:
7 a caliper housing with a mounting bracket structured and
8 dimensioned to be attached to a bicycle with a cable support
9 having an opening for guiding a cable there through;

10 wherein the cable support extends from a surface of the
11 caliper housing and is not adjustable in any direction relative to
12 the surface of the caliper housing;

13 a first friction member ~~movably~~ coupled to ~~said~~ the caliper
14 housing for movement between a release position and a braking
15 position;

16 a second friction member coupled to ~~said~~ the caliper housing
17 and arranged substantially parallel to ~~said~~ the first friction member to
18 form a rotor receiving slot therebetween; and

19 an actuated mechanism movably coupled to ~~said~~ the caliper
20 housing to move ~~said~~ the first friction member in an axial direction
21 from ~~said~~ the release position towards ~~said~~ the second friction
22 member to ~~said~~ the braking position, ~~said~~

23 wherein the actuated mechanism ~~including~~
24 ~~an input cam movably mounted within said caliper housing to~~
~~move in a rotational direction about a longitudinal axis, but not in an~~

1 axial direction, said input cam having first camming surface with an
2 axially extending guide member non-movably fixed thereto at said
3 longitudinal axis, and

4 ~~an output cam movably mounted within said caliper housing to~~
5 ~~move in the axial direction in response to rotation of said input cam,~~
6 ~~but not in the rotational direction, said output cam having a second~~
7 ~~camming surface with an axially extending bore, said guide member~~
8 ~~being at least partially disposed within said bore to ensure smooth~~
9 ~~relative movement between said input and output cams comprises an~~
10 ~~elongated actuating arm rotatably coupled to the caliper housing~~
11 ~~to cause the actuated mechanism to move the first friction~~
12 ~~member from the release position towards the braking position;~~

13 wherein the actuating arm has a curved guide surface with
14 a first portion coincident with a cable clamp and a second portion
15 that extends from the first portion towards the cable support so
16 that the cable, when coupled to the cable clamp, approaches the
17 guide surface from the opening in the cable support essentially
18 tangent to the guide surface and is supported by the guide surface
19 when the first friction member in the release position.

20 **Claim 74**

21 Claim 74 is similar in many respects to claim 37. However, one
22 significant difference is that claim 74 contains a "one piece" limitation
23 [drawing element numbers, italics and some discussion added]:

1 wherein *the cable support 44 is one piece* with the
2 surface of the caliper housing 30 from which it extends [clearly
3 said by Shimano to be shown in Fig. 7—see also Fig. 5]

4 Shimano's position

5 According to Shimano, claim 37 recites the following limitations:

6 (1) wherein the cable support extends from a surface of
7 the caliper housing and is not adjustable in any direction
8 relative to the surface of the caliper housing, and

9 (2) wherein the actuating arm has a curved guide surface
10 with a first portion coincident with a cable clamp and a second
11 portion that extends from the first portion towards the cable
12 support so that the cable, when coupled to the cable clamp,
13 approaches the guide surface from the opening in the cable
14 support essentially tangent to the guide surface and is supported
15 by the guide surface when the first friction member is in the
16 release position.

17 Appeal Brief, pages 11-12.

18 Further according to Shimano, these limitations "materially narrow"
19 claim 37 vis-à-vis patent claim 1 (which is claim 1 of the original
20 application, twice amended). Claim 37, therefore, is said to "recite a distinct
21 invention." Appeal Brief, page 12.

22 With respect to claim 74, Shimano further argues the "one piece"
23 limitation. Appeal Brief, page 13. According to Shimano, the "one piece"
24 "feature" causes claim 74 "to recite a distinct invention and therefore

1 materially narrow claim 74" avoids "the recapture rule according to step (3)
2 [of *Clement*]. *Id.*

3 Examiner's findings

4 The Examiner correctly found that (1) the strikethrough limitations of
5 claim 37, as reproduced above, were deleted vis-à-vis claim 1, and (2) the
6 bold limitations were added.

7 The Examiner made no findings with respect to whether (1) the added
8 bold limitations relate to an aspect of the invention *overlooked* (not claimed)
9 during the original prosecution and, if so, (2) whether those limitations
10 *materially* narrow claim 37 with respect to the overlooked aspect of the
11 invention.

12 Legal principles

13 Based on *In re Clement*, 131 F.3d 1464, 1470 (Fed. Cir. 1997), the
14 following principles apply.

15 Principle 1. If the reissue claim is as broad as or broader than the
16 cancelled or amended claim in all aspects, the recapture rule bars the claim.

17 Principle 2. If the reissue claim is narrower than the cancelled or
18 amended claim in all aspects, the recapture rule does not apply, but other
19 rejections (e.g., § 102, § 103, § 112) are possible.

20 Principle 3: If the reissue claim is broader in some aspects, but
21 narrower in other aspects, than the cancelled or amended claim, then:

22 Principle 3(a): if the reissue claim is as broad as or broader in
23 an aspect germane to a prior art rejection of a claim in the original
24 application, but *narrower in another aspect completely unrelated to the*
25 *rejection*, the recapture rule bars the reissue claim or

1 Principle 3(b): if the reissue claim is narrower in an aspect
2 germane to the prior art rejection, and broader in an aspect unrelated to the
3 rejection, the recapture rule does not bar the claim, but other rejections are
4 possible.

5 *Hester Indus., Inc. v. Stein, Inc.*, 142 F.3d 1472, 1482-83 (Fed. Cir.
6 1998) (emphasis added; some citations omitted) has also established an
7 additional principle that:

8 [T]he recapture rule [may be avoided altogether] when the
9 reissue claims are *materially* narrower in other *overlooked*
10 aspects of the invention. The purpose of . . . [this principle] is
11 to allow the patentee to obtain through reissue a scope of
12 protection to which . . . [the patentee] is rightfully entitled for
13 such overlooked aspects.

14 See also MPEP § 1412.02(I)(C) [8th ed., Rev. 7, July 2008].

15 By "other . . . aspects", *Hester* means aspects not previously claimed
16 during prosecution of the application maturing into the patent sought to be
17 reissued.

18 Accordingly, we can resolve a recapture rejection by determining
19 whether the "narrower in another aspect" (i.e., a limitation of a reissue
20 claims) was (1) overlooked during original prosecution *and* (2) is material.

21 Whether an aspect of a reissue claim was *overlooked* during original
22 prosecution is fact-based and is resolved on a case-by-case basis.

23 Whether an aspect of a reissue claim is *material* is also fact-based and
24 also resolved on a case-by-case basis.

1 One way to show materiality may be to show that the reissue claim is
2 patentable over the prior art. *Ex parte Bradshaw*, 2007 WL 2139843,
3 slip op. at 15-20 (BPAI July 19, 2007), also available at:
4 <http://des.uspto.gov/Foia/RetrivePdf?system=BPAI&flNm=fd2006274407-19-2007-0>.

6 Shimano's Bd. R. 41.37(d) supplemental brief

7 We were unable to find in the Appeal Brief a detailed factual analysis
8 of the "overlooked" or "material" issues.

9 We declined to resolve either issue in the first instance without
10 affording Shimano an opportunity to present its position on the relevant
11 facts.

12 An appellant, not the Board in the first instance, should set forth the
13 relevant facts upon which it bases its request for reversal of an examiner's
14 rejection.

15 To help us resolve the "recapture" rejection of claims 37 and 72-74 on
16 appeal, we invited Shimano to address several points, two of which were:

17 Point (2)

18 Point (2): Shimano was invited to address (1) why relevant
19 limitations in *claims 37 and 72-74* should be considered to have been
20 "overlooked" and (2) why those limitations are "material."

21 Point (3)

22 Point (3): Shimano was invited to state its views on what criteria
23 should be used to determine whether a limitation is "material".

24 We noted that one way to show that a newly added limitation is
25 "material" is to establish that a reissue claim containing the limitation is

1 patentable over the prior art. *Ex parte Bradshaw, supra*. There may be
2 alternative ways. For example, in a § 135(b) context, "material" and
3 "patentability" (*i.e.*, obviousness) do not mean the same thing. *In re Berger*,
4 279 F.3d 975, 981-982 (Fed. Cir. 2002).

5 In presenting its views, we asked Shimano to address whether a
6 reissue claim can contain new limitation which can be considered "material"
7 if the reissue claim does *not* define subject matter patentable over the prior
8 art.

9 Shimano responded to our invitation and filed a supplemental brief.
10 Response to Request for Additional Briefing, filed 8 May 2009.

11 Resolution of the recapture rule rejections

12 In its Response to Request for Additional Briefing, Shimano states
13 (page 17) that the "one piece" limitation of claim 74 was not claimed during
14 prosecution of the application maturing into the patent sought to be reissued.
15 Shimano reasons therefore that the "one piece" limitation was "overlooked"
16 during original prosecution.

17 We have reviewed the patent claims, including Shimano's annotated
18 version of those claims as appear in the Response to Request for Additional
19 Briefing. We have been unable to find where any "one piece" limitation was
20 explicitly claimed during prosecution. The Examiner has not called our
21 attention to any "one piece" limitation in any claim involved in the
22 prosecution of the application which matured into the patent sought to be
23 reissued.

24 We will note that during original prosecution, Shimano added claim
25 21 [drawing element numbers, italics and discussion by Shimano added]:

1 21. A cable disc brake (12a) according to claim 1,
2 wherein said input cam (90) includes a first cam member ((90a;
3 Fig. 29, col. 8:62-65) disposed within *an internal bore* ((46);
4 Fig. 12, col. 6:42-46) of said caliper housing (30) (as shown in
5 Fig. 5).

6 For the convenience of the reader, we repeat what the specification
7 has to say about cable support flange 44 as it relates to internal bore 46
8 (col. 6:41-49) (italics added):

9 As seen in FIGS. 7-12, the left caliper portion 38 basically has a
10 body portion 42 a pair of mounting flanges 43 and a *cable*
11 *support flange 44*. The body portion 42 has a pad support
12 bore 45 extending in a longitudinal direction and an axially
13 extending internal bore 46 that extends longitudinally between
14 a first open end 48 and a second open end 50 of the left caliper
15 portion 38. The pad support bore 45 is utilized to support the
16 brake pads 32 on the caliper housing 30 as discussed below.

17 The specification also says (col. 7:33-37) (italics added):

18 As seen in FIGS. 2, 4, 7 and 8, the *cable support member or*
19 *flange 44 extends outwardly from the body portion 42* in a
20 direction that is substantially tangent to an imaginary circle
21 with its center located at the center axis of the internal bore 46.

22 The fact that an internal bore 46 was claimed in the original patent
23 (claim 21) does not establish that Shimano did not overlook the "one piece"
24 feature of its invention. The internal bore 46 is not dependent on a "one
25 piece" element and vice-versa.

1 On the record before us, we hold that the "one piece" element is
2 material within the meaning of *Hester* because it renders claim 74 patentable
3 over the prior art. *Ex parte Bradshaw, supra.*

4 On the record before us, we further hold that the "one piece" element
5 was overlooked within the meaning of *Hester* because it was not claimed
6 during prosecution of the application which matured into the patent sought
7 to be reissued.

8 On the record before us, we still further hold that, in view of the
9 resolution of the § 103 rejections, the new limitations in claims 37 and 72-73
10 are not material within the meaning of *Hester*, because claims 37 and 72-73
11 are not patentable over the prior art.

12 The decision of the Examiner rejecting claims 69-71 and 74 based on
13 the recapture rule is *reversed*.

14 The decision of the Examiner rejecting claims 37 and 72-73 (and
15 claims 38-60 depending directly or indirectly from claim 37 and not
16 separately argued in the Appeal Brief and Reply Brief with respect to the
17 recapture rule rejection) based on the recapture rule is *affirmed*.

18 Claims 44-46

19 In presenting the appeal via the Appeal Brief and Reply Brief,
20 Shimano did not separately address claims 44-46 with respect to the
21 recapture rule—despite the known fact that those claims were not rejected
22 over the prior art.

23 For this reason, Shimano should not be surprised that the Examiner
24 likewise did not have to, and did not, separately address claims 44-46 with
25 respect to the recapture rule rejection.

1 In inviting Shimano to comment on the overlooked aspects of claims
2 37 and 72-74, we said:

Point (2)

Shimano should address (1) why relevant limitations in claims 37 and 72-74 should be considered to have been "overlooked" and (2) why those limitations are "material."

7 We limited the claims to be discussed to claims 37 and 72-74 because
8 with respect to the recapture rule those were the only claims specifically
9 addressed in the Appeal Brief and Reply Brief.

10 The request for supplemental briefing was not intended to reopen
11 prosecution or to permit Shimano to address additional claims beyond
12 claims 37 and 72-74.

13 Despite the narrow request, in its response Shimano separately
14 addresses for the first time claim 44 and claims 45-46 which depend from
15 claim 44. *See Response to Request for Additional Briefing*, page 8:

16 Claim 44 . . . [is] reproduced because claim 44 and dependent
17 claims 45-46 were not rejected over the prior art.

18 and page 17;

19 Pursuant to Point (1)(2), Shimano reproduced claim 44. The
20 limitations in claim 44 believed to be overlooked include the
21 text

22 "wherein the biasing mechanism comprising a spring
23 having a first end and a second end, and wherein the
24 adjusting mechanism adjusts the biasing force by moving

1 one of the first end and the second end relative to the
2 other one of the first end and the second end."

3 These aspects are believed to have been overlooked because
4 they were not previously claimed in conjunction with the
5 limitations of claim 37 during prosecution of the application
6 maturing into the patent sought to be reissued.

7 We decline to consider the argument or to address claims 44-46
8 separately. *First*, the argument was not presented in the Appeal Brief and
9 therefore was waived. *Second*, the argument was not presented in the Reply
10 Brief. *Third*, discussion of claims 44-46 was not authorized in our
11 Bd. R. 41.37(d) order. *Fourth*, the Examiner has not had an opportunity to
12 address the arguments. *Fifth*, a remand to the Examiner is not in order
13 because Shimano could have presented the arguments in the Appeal Brief
14 for consideration in the first instance by the Examiner. The rules give an
15 applicant an opportunity to argue in the Appeal Brief each claim the
16 applicant wants the Board to separately consider. Shimano did not timely
17 avail itself of the opportunity provided by the rules. Accordingly, on this
18 record, Shimano has waived its right to have claims 44-46 considered
19 separately with respect to the recapture rule rejection. The recapture rule
20 rejection of claims 44-46 therefore stands or falls with the recapture rule
21 rejection of claim 37.

1 E. Decision

2 Upon consideration of the appeal, and for the reasons given herein,
3 it is

4 ORDERED that the decision of the Examiner rejecting
5 claims 43, 69-71 and 74 over the prior art is *reversed*.

6 FURTHER ORDERED that the decision of the Examiner
7 rejecting claims 37-42, 47-60 and 72-73 over the prior art is *affirmed*.

8 FURTHER ORDERED that the decision of the Examiner
9 rejecting claims 69-71 and 74 based on the recapture rule is *reversed*.

10 FURTHER ORDERED that the decision of the Examiner
11 rejecting claims 37-60 and 72-73 based on the recapture rule is *affirmed*.

12 FURTHER ORDERED that no time period for taking any
13 subsequent action in connection with this appeal may be extended under
14 37 C.F.R. § 1.136(a)(1)(iv) (2008).

15 AFFIRMED-IN-PART and REVERSED-IN-PART

16
17 saw
18

cc (via First Class mail)

19
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1 Appendix 1

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3

Status of Claims

4

Claim	Allowed	Rejected	Rejected	Rejected	Rejected
		Recapture	Le Deit	Le Deit	Le Deit
			Carre	Carre	Carre
			Huang	Huang	Huang
				Isai	Isai
					Mott
1	x				
2	x				
3	x				
4	x				
5	x				
6	x				
7	x				
8	x				
9	x				
10	x				
11	x				
12	x				
13	x				
14	x				
15	x				
16	x				
17	x				
18	x				
19	x				
20	x				
21	x				
22	x				
23	x				
24	x				

5

Appeal 2009-002559
Application 10/826,173

Claim	Allowed	Rejected	Rejected	Rejected	Rejected
		Recapture	Le Deit	Le Deit	Le Deit
			Carre	Carre	Carre
			Huang	Huang	Huang
				Isai	Isai
					Mott
25	x				
26	x				
27	x				
28	x				
29	x				
30	x				
31	x				
32	x				
33	x				
34	x				
35	x				
36	x				
37		x	x		
38		x	x		
39		x	x		
40		x	x		
41		x	x		
42		x	x		
43		x	x		
44		x			
45		x			
46		x			
47		x	x		
48		x	x		
49		x	x		

Appeal 2009-002559
Application 10/826,173

1

Claim	Allowed	Rejected	Rejected	Rejected	Rejected
		Recapture	Le Deit	Le Deit	Le Deit
			Carre	Carre	Carre
			Huang	Huang	Huang
				Isai	Isai
					Mott
50		x	x		
51		x	x		
52		x	x		
53		x	x		
54		x	x		
55		x		x	
56		x		x	
57		x		x	
58		x		x	
59		x		x	
60		x			x
61	x				
62	Cancelled				
63	x				
64	x				
65	x				
66	Cancelled				
67	x				
68	x				
69		x	x		
70		x	x		
71		x	x		
72		x	x		
73		x	x		
74		x	x		

2